

## REMARKS

Claims 1-42 are pending in the application. Claims 1, 16, 24, 27, and 41 have been amended. Favorable reconsideration of the application, as amended, is respectfully requested.

### I. ALLOWABLE SUBJECT MATTER

Applicants acknowledge with appreciation the allowance of claims 11-15, 32-35, 37, 40, and 42. For at least the reasons set forth below, Applicants believe that other pending claims are also in condition for allowance.

### II. REJECTIONS OF CLAIMS 1-10, 16-31, 36, 38, 39, AND 41 UNDER 35 U.S.C.

#### §§ 102 AND 103

Claims 1-10, 16-31, 36, 38, 39, and 41 stand rejected under 35 U.S.C. §§ 102(e) and 103(a) as being anticipated/unpatentable primarily based on U.S. Patent Application Publication No. 2001/0055319 A1 ("Quigley"). These rejected claims are believed to be allowable for at least the following reasons. Withdrawal of the rejection is respectfully requested.

The present invention is generally directed to systems and methods for adjusting cable modem power and frequency levels when noise is present in the cable network. Currently rejected independent claims 1, 16, 24, 27, and 41 have been amended to further clarify one of the aspects of the invention. For example, independent claim 1 requires "calculating a power adjustment using a plurality of recent power measurements of signals taken over a plurality of ranging requests from the cable modem taken at or proximate the head-end of the cable network." Other rejected independent claims 16, 24, 27, and 41 now contain recitations similar to those of claim 1. Support for the amendments is found at, for example, page 12, line 35 - page 13, line 4 of the present specification. No new matter has been introduced by the amendments.

According to a specific exemplary embodiment of the invention, the CMTS calculates an average  $\Delta P$  over recent ranging requests. Such an average calculation may have the effect of damping any spikes in the value of  $\Delta P$  that result from noise on the network. See, *Id.* In other words, the specific embodiment of the invention may be capable of evaluating long term fluctuations without being affected by short term variations, or spike noise, by utilizing measurements over multiple ranging requests.

By contrast, the system disclosed in Quigley is concerned with power compensation based on short term variations. For example, paragraph 338 of Quigley describes compensation "for short term fluctuations." In order to compensate for short term fluctuations, the Quigley system computes the average of amplitudes in each of the symbols included in a single packet.

See, Quigley, paragraph 272. Specifically, these symbols are taken from the end of the unique word (UW 721 in Fig. 35) in the direction toward the preamble (preamble 720 in Fig. 35) (Quigley, paragraph 272). Here, both the UW 721 and the preamble 720, from which the symbols are taken for averaging operation, are located within a single packet 719 (Quigley, paragraphs 271-274 referring to Fig. 35). As a result, such symbols within the single packet 719 cannot be said to teach or suggest the claimed plurality of measurements "taken over a plurality of ranging requests" because a plurality of ranging requests cannot be accomplished within a single packet as understood by those skilled in the art. Therefore, Quigley fails to teach or suggest the above-discussed claimed aspect of the invention.

The Leano patent was cited to cure the deficiencies of Quigley as describing program instructions in a computer readable medium. However, Leano is silent on the above-discussed claimed aspect of the invention. Therefore, Leano cannot make up the deficiencies of Quigley.

### III. CONCLUSION

Applicants believe that all pending claims are in condition for allowance, and respectfully request a Notice of Allowance at an early date. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 510-843-6200, ext. 245.

Respectfully submitted,  
BEYER WEAVER & THOMAS, LLP

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Limited Recognition under 37 CFR §10.9(b)

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Expires: August 28, 2004



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